

Corps comments – 20Nov07

Columbia and Snake River Temperature Challenges – Summary of 9/25-26 Meeting and Action Plan

The Corps of Engineers (Corps), Bureau of Reclamation (Reclamation), and Environmental Protection Agency (EPA) met in Portland on September 25-26, 2007 to discuss challenges each agency faces related to water temperature in the Columbia and Snake Rivers.

For context and background, these two major rivers are listed by the states of Idaho, Oregon, and Washington as ‘impaired’ for temperature under Section 303 of the Clean Water Act. With those formal impairment listings comes the obligation to develop plans to bring the rivers into compliance with the approved state water temperature standards. Although the Clean Water Act places this obligation on the individual states, each of the three states has asked EPA to take on the responsibility for developing the appropriate temperature attainment plan. Specifically, Oregon and Washington asked EPA to develop the TMDL; Idaho asked EPA to do the modeling but intended to develop its own TMDL for Idaho waters. The states argue that the Columbia River and the Snake River are subject to the standards of two or three states, and one or more tribes, and thus it makes sense for EPA to take on this responsibility. EPA has agreed.

EPA Region 10 developed a preliminary draft a draft temperature attainment plan, in the form of a proposed TMDL, in November 2002, 2003. [The preliminary draft TMDL did not include an “attainment plan”. Indeed, page vii, paragraph 2, states that the TMDL and implementation plan are being kept separate in this case. The TMDL states further that it is prudent to verify that a temperature problem exists before proposing implementation alternatives for Federal and PUD dams that could be very costly.] This preliminary draft TMDL ~~plan~~ generated significant concern among several parties, including most notably in the context of this meeting the Corps and Reclamation the Bureau. Concerns included both technical issues associated with EPA approach/modeling and over-arching policy issues related to attainability of state water quality standards. The meeting in Portland on September 25-26 was intended to determine if the three federal agencies could reach agreement on a path forward to address the relevant technical and policy issues.

This paper summarizes the agreements reached at the meeting and the action plan for follow-up steps.

Meeting Attendees.

The meeting was well-attended by staff and managers of the three agencies, including Reclamation Bureau officials from Boise; EPA officials from Region 10 in Portland and,

Seattle, and Headquarters; and Corps officials from Portland ~~and~~, Walla Walla ~~Districts~~, ~~Northwestern Division~~, ~~ERDC~~~~The Dalles~~, and Headquarters. See attached attendees list: ~~[Not provided in this draft.]~~

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Major Points of Agreements

1. Everyone agreed it appears unlikely that full ~~attainment of compliance with~~ state water quality standards for ~~water~~ temperature ~~is feasible~~~~can be attained~~ throughout the study area (Columbia from the Canadian Border to the Pacific; Snake from the confluence with the Salmon River to confluence with the Columbia), even with significant changes in dam operations ~~and/or configuration~~.
2. Everyone also agreed that in spite of these likely attainment challenges, it is important for the agencies to work together diligently to a) determine the nature and extent of the temperature problems in the two rivers, and b) gain a full understanding of the practical and feasible measures available to address temperature problems.
3. The specific regulatory pathway to be pursued to address the listed temperature impairments (e.g., TMDL, or UAA, or other) is a matter to be addressed once the technical and policy issues addressed below have been more fully resolved.
4. A technical team will be formed by the three agencies. Members of this team were identified and the initial work assignment for the team was identified. * (See attached technical team)
5. A policy-level team with members from all three agencies will also be formed to review the recommendations/findings of the technical team.* (See attached policy team)
6. EPA will work with the three states and appropriate tribes to gain a clear understanding of how each state and tribe will determine temperature compliance in the rivers. Before completing this effort, the Corps and ~~Reclamation~~~~the Bureau~~ will be brought into the conversation with the states and tribes to allow for an open dialogue between federal, tribal and state agencies on how compliance will be determined. This will include determining what operational and/or physical modifications to physical dam structures should be evaluated, and the criteria to be used by the states to determine feasibility.
7. There was extensive and fruitful discussion of modeling tools. Through that discussion, a) the Corps and ~~Reclamation~~~~Bureau~~ expressed interest in developing and applying 2D models to answer questions related to the impact of ~~their~~~~the~~ dams on ~~attaining compliance with state~~ water quality standards for certain river reaches (Lower Snake & Grand Coulee reservoirs), and EPA supported this interest; and b) there were no strictly technical issues identified with EPA's RBM10 model (e.g., underlying equations and model theory), but concerns about boundary conditions and assumptions were expressed. Further technical review/discussion of EPA's model was ~~re~~ferred to the technical committee.

8. The initial work of the technical team is to address the following questions, qualitatively, and bring their assessment, with pros and cons, to the policy team:

a. Develop a qualitative analysis of how different boundary conditions (e.g., current conditions, absence of Dworshak, absence of Canadian dams on main stem) could be estimated, including the potential cost and time needed to do that. Evaluate how alternative boundary conditions might influence compliance determinations and implementation.

b. Review capabilities and limitations of a 2D model of the Snake River developed by the Corps. Evaluate how this 2D model might influence compliance determinations and implementation. Develop cost and time estimates for 2D model documentation and enhancements to assess “no dams” conditions for the Snake River.

* Although not discussed at length, it might also be agreeable/desirable to consider adding members to the technical team from states, tribes, or other agencies in the future. Likewise for the policy team.

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c. Review capabilities, limitations, and results of pending models of Lake Roosevelt (including PSU 2D model and potential ~~Reclamation Bureau~~ 2D model). Evaluate how these models might influence compliance determinations and implementation. Develop cost and time estimates for 2D model development and enhancements, including “no dam” setup.

d. Assess the feasibility, cost and potential benefits associated with a focused assessment of the Columbia River above Chief Joseph and including Lake Roosevelt.

e. Assess the need for data updates for the existing EPA model for the remainder of the Columbia River main stem from Chief Joseph to the estuary. Additionally, assess the linkage to a 2D model of the Snake River. EPA will distribute complete documentation for its existing 1D model to the Corps and ~~Reclamation the Bureau~~.

9. The technical team will conduct a meeting in November to consider this work as signment and prepare their findings, if possible, for the policy team.

10. The policy team will meet again in December to assess progress and decide on the path forward. If there is suitable progress on the technical issues listed above, the plan would be to: a) share the results in a follow-up meeting with other affected federal agencies, notably ~~the U.S.~~ Fish & Wildlife ~~Service~~, NOAA ~~Fisheries~~, and BPA, perhaps early in 2008; then c) share the collective path forward with state and tribal officials.

| 11. Once EPA, the Corps, and Reclamation agree~~there is agreement~~ on this summary of our September 25-26 meeting, it will be shared with concerned states and tribes to determine what involvement they wish to have as the federal effort goes forward.